

# Natural Engineer WebStar

## Version 4.4.2

### Release Notes

**Manual Order Number: NWS442-008ALL**

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This document applies to Natural Engineer version 4.4.2 and to all subsequent releases.

Specifications contained herein are subject to change, and these changes will be reported in subsequent revisions or editions.

Readers' comments are welcomed. Comments may be addressed to the Documentation Department at the address on the back cover. Internet users may send comments to the following e-mail address:

[document@gensystems.com](mailto:document@gensystems.com)

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# ABOUT THIS MANUAL

## Purpose of this manual

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This manual contains the Release Notes for the Natural Engineer add-on component WebStar version 4.4.2. The information contained in this manual describes the new and modified features of the Natural Engineer add-on component WebStar version 4.4.2.

Any obsolete functions are also documented for users of previously released versions of the Natural Engineer add-on component WebStar.

*Note: This manual only documents Natural Engineer add-on component WebStar version 4.4.2 functionality. To review any changes to the core Natural Engineer functionality, you should also read all previous Natural Engineer version 4.4.2 Release Notes.*

## Target Audience

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The target audience for this manual is intended to be any user of the Natural Engineer add-on component WebStar version 4.4.2 as well as Systems Administrators responsible for installing and configuring the product.

## Typographical Conventions used in this manual

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The following conventions are used throughout this manual:

<b>UPPERCASE TIMES</b>	Commands, statements, names of programs and utilities referred to in text paragraphs appear in normal (Times) uppercase.
<b>UPPERCASE BOLD COURIER</b>	In illustrations or examples of commands, items in uppercase bold courier must be typed in as they appear.
< >	Items in angled brackets are placeholders for user-supplied information. For example, if asked to enter <file number>, you must type the number of the required file.
<u>Underlined</u>	Underlined parts of text are hyperlinks to other parts within the online source manual. This manual was written in MS-Word 97 using the "hyperlink" feature.

The following symbols are used for instructions:

⇒	Marks the beginning of an instruction set.
□	Indicates that the instruction set consists of a single step.
1.	Indicates the first of a number of steps.

## How this manual is organized

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This manual is organized to reflect the new features/enhancements, changes/modifications and documentation updates available with the release of the Natural Engineer add-on component WebStar version 4.4.2.

This manual should be read carefully before installing and using the product.

<b>Chapter</b>	<b>Contents</b>
1	Provides an overview of the new features / enhancements for this release along with any product highlights.
2	Provides details of any existing functionality and / or any functions that have become obsolete for this release.
3	Provides a list of the documentation available for this release along with manual order numbers.

## **Terminology**

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It is assumed that you are familiar with general Natural and mainframe terminology, as well as the terms and concepts relating to Microsoft Windows operating systems. This section explains some terms that are specific to the Natural Engineer product.

### **Analysis**

The Analysis process of Natural Engineer searches application data within the Natural Engineer Repository, according to specified Search Criteria and generates reports on the search results.

### **Application**

An Application is a library or group of related libraries, which define a complete Application. In Natural Engineer, the Application can have a one-to-one relationship with a single library of the same name, or a library of a different name, as well as related steplibs. The Application refers to all the source code from these libraries, which Natural Engineer loads into the Repository.

### **Browser**

An Internet Browser such as Microsoft Internet Explorer or Netscape.

### **Category**

Categories in Natural Engineer specify whether and how a Modification is applied to the Natural code. Valid categories are: Automatic change, Manual change, Reject the default Modification, No change to the data item, and the data item is in Generated Code.

A category is further broken down according to type of change (for example: Keyword, Literal, Data Item, Database Access, Definition).

### **Consistency**

An option in the Analysis process that causes Natural Engineer to trace an Impact through the code, using left and right argument resolution to identify further code impacted by the code found.



## **Environment**

The Environment process is the means by which Natural Engineer generates a structured view of the application code in the Natural Engineer Repository. This provides application analysis reports and inventory information on the application and is used as the basis for Impact Analysis.

## **Exception**

An Exception is an Item identified as impacted that does not require a Modification. Where there are a few similar Exception Items, they can be treated as Exceptions, and rejected in the Modification review process. Where there are many similar (therefore not Exceptions), consideration should be given to changing the Search Criteria so they are not identified as impacted in the first place.

## **Generated Code**

This is code which has been generated by a Natural code generator, such as Construct, and which is not normally modified directly in the Natural editor.

## **Impact**

An Impact is an instance of a Natural code Item; e.g., data item or statement (a “hit” scored by the Analysis process) that matches the defined Search Criteria used in the Analysis process.

## **Iteration**

An Iteration is one examination cycle of a field identified according to the specified Search Criteria. For example, one Iteration is reading the field right to left. Multiple Iterations are performed when the option of ‘Consistency’ or Multi Search is requested for Analysis, and Natural Engineer performs as many Iterations as necessary to exhaust all possibilities of expressing and tracing the field, and can be limited by a setting in the NATENG.INI file.

## **Library**

A single library of source code, which exists in the Natural system file.

## **Natural Engineer WebStar Version 4.4.2 Release Notes**

### **Modification**

A Modification is a change suggested or made to an object or data item resulting in the required compliance of that object or data item. Modifications in Natural Engineer are classified according to Category and Type.

### **Presentation Split Process**

The Presentation Split Process is a sub-function of the Object Builder function that removes screen I/O statements from current application objects and places them in generated subprograms.

### **Soft Link**

A Soft Link is where a link between two objects has been defined using an alphanumeric variable rather than a literal constant.

### **Technical Split Process**

The Technical Split Process is a sub-function of the Object Builder function that results in the encapsulation of each database access within the application, into a sub-program so that the application is separated into 'presentation and logic' and 'database access'.

### **Type**

The Type of Modification available, for example: Data Item, Keyword and Literal.

### **TLM**

Text Logic Members are used to contain the code required to support inclusion of common code into the application. An example of this is the code to include into an application before updating a database.

## Related Literature

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The complete set of Natural Engineer manuals consists of:

**1 Natural Engineer Concepts and Facilities (NEE442-006ALL)**

The Concepts and Facilities manual describes the many application systems problems and solutions offered by Natural Engineer, providing some guidelines and usage that can be applied to Natural applications.

**2 Natural Engineer Release Notes (NEE442-008ALL)**

The Release Notes describe all the information relating to the new features, upgrades to existing functions and documentation updates that have been applied to Natural Engineer.

**3 Natural Engineer Installation Guide (NEE442-010ALL)**

The Installation Guide provides information on how to install Natural Engineer on both PC and mainframe platforms.

**4 Natural Engineer Administration Guide (NEE442-040WIN)  
Natural Engineer Administration Guide (NEE442-040MFR)**

The Administration Guide provides information on all the various control settings available to control the usage of the different functions within Natural Engineer.

**5 Natural Engineer Application Management (NEE442-020WIN)  
Natural Engineer Application Management (NEE442-020MFR)**

The Application Management manual describes all the functions required to add Natural applications into the Repository.

**6 Natural Engineer Application Documentation (NEE442-022WIN)  
Natural Engineer Application Documentation (NEE442-022MFR)**

The Application Documentation manual describes all the available functions to document a Natural application within the Repository. These functions will help enhance / supplement any existing systems documentation such as BSD / CSD / Specifications etc.

**7 Natural Engineer Application Analysis and Modification (NEE442-023WIN)  
Natural Engineer Application Analysis and Modification (NEE442-023MFR)**

The Application Analysis and Modification manual describes all the available functions to carry out analysis of Natural applications; including basic keyword searches. The modification process is described and detailed to show how it can be applied to modify single selected objects within a Natural application, or the entire Natural application in one single execution.

## **Natural Engineer WebStar Version 4.4.2 Release Notes**

**8    Natural Engineer Application Restructuring (NEE442-024WIN)  
     Natural Engineer Application Restructuring (NEE442-024MFR)**

The Application Restructuring manual describes the analysis and modification functionality required to carryout some of the more sophisticated functions such as Object Builder.

**9    Natural Engineer Utilities (NEE442-080WIN)  
     Natural Engineer Utilities (NEE442-080MFR)**

The Utilities manual describes all the available utilities found within Natural Engineer and, when and how they should be used.

**10   Natural Engineer Reporting (NEE442-025ALL)**

The Reporting manual describes each of the reports available in detail, providing report layouts, how to trigger the report and when the report data becomes available. The various report-producing mediums within Natural Engineer are also described.

**11   Natural Engineer Batch Processing [Mainframes] (NEE442-026MFR)**

The Batch Processing manual describes the various batch jobs (JCL) and their functionality.

**12   Natural Engineer WebStar (NWS442-020ALL)**

The WebStar manual describes the concepts and facilities, installation and configuration options, how to web enable a Natural application and how to create and execute Natural Short Transactions using the Natural Engineer add-on component WebStar.

**13   Natural Engineer WebStar Release Notes (NWS442-008ALL)**

The Release Notes describe all the information relating to the new features, upgrades to existing functions and documentation updates that have been applied to the Natural Engineer add-on component WebStar.

**14   Natural Engineer Messages and Codes (NEE442-060ALL)**

The Messages and Codes manual describes the various messages and codes produced by Natural Engineer.

# FUNCTIONAL CHANGES AND ENHANCEMENTS

## Chapter Overview

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This chapter covers the new features and enhancements that are available in the Natural Engineer add-on component WebStar version 4.4.2.

The main new features and enhancements are summarized in the following sections:

### **General**

- Migrating to Version 4.4.2.

### **New Features**

- Enhanced PF Key support.
- Enhanced Help sub-system support.
- Enhanced XSL for PF Key Buttons.

### **Changes and Enhancements**

- Removal of CLR Key support.

## General

---

### Migrating to Version 4.4.2

#### From any previous version of WebStar 4.3.1

If you wish to use the new SYSNEEW run time library supplied with Natural Engineer WebStar version 4.4.2, then you will need to regenerate the web enabled applications with this library. This is required due to an increase in size of the communication block between the application and EntireX Broker.

You will also need to install the latest WebStar run time components found in the subdirectory '\Web' on the Natural Engineer product CD.

*Note: You should also review the Migration to Version 4.4.2 section in the Natural Engineer Version 4.4.2 Release Notes (NEE442-008ALL) for any requirements for Natural Engineer core functionality.*

#### From version of WebStar 4.4.1

Any previously web-enabled applications will need to be regenerated to incorporate the latest PF key and Help sub-system enhancements.

*Note: You should also review the Migration to Version 4.4.2 section in the Natural Engineer Version 4.4.2 Release Notes (NEE442-008ALL) for any requirements for Natural Engineer core functionality.*

## New Features

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### Enhanced PF Key Support

PF key settings set at the highest level, and then the same settings are used by lower level (called) objects using maps are now supported.

For example:

A program sets the PF keys to be used in a map. Subsequent subprograms using maps can still use the same PF key settings (i.e., no SET KEY statements are used in the subprogram to override the higher level settings).

### Enhanced Help Sub-system Support

For Natural applications that have Help sub-systems, previous versions of WebStar would run a separate Natural session for the Help sub-system. This would mean that if the Help sub-system utilizes any GDA data, then the GDA data would not be available.

Enhanced help support has been introduced which allows the Help sub-system to run in the same Natural session as the application. This means that any GDA data will be available to the Help sub-system.

*Note: Any Help sub-systems will still appear in a separate browser window.*

If the Help sub-system needs to reference GDA objects, the WEB-SUBR parameter in the NATENG.INI file needs to be set to tell the WebStar Modification process to generate subroutine objects instead of subprogram objects for the Help sub-system.

If this parameter is not used, then the default WebStar Modification process is to generate subprogram objects.

The parameter is located under the MODIFY group.

**[MODIFY]****WEB-SUBR=**

Possible values are:

- N** Generate Subprogram objects for the Help sub-system.
- Y** Generate Subroutine objects for the Help sub-system.

*Note: The WEB-SUBR parameter must be set before the WebStar Modification process is applied.*

## Enhanced XSL for PF Key Buttons

Enhanced XSL functionality has been introduced for the PF key buttons used by the web-enabled application.

### 1. Button sizes.

The button sizes have been standardized for a more unified look.

### 2. PF key identity.

The PF key buttons that appear on each application screen in the browser show the PF key name as specified using the NAMED clause with the SET KEY statement.

It is now possible to view the PF key identity by hovering over the PF key buttons with the mouse pointer. The PF key button text will change to show the PF key identity and the text color will become red. Moving the mouse pointer away will return the PF key button text back to the PF key name and the text color will be reset to black.

For example:

A program has the following SET KEY statements to be used by a map:

```
0280 SET KEY PF3 NAMED 'EXIT'
0290 SET KEY PF4 NAMED 'SAVE'
0300 SET KEY PF5 NAMED 'UPD'
0310 SET KEY PF6 NAMED 'DEL'
```



The following Figure 1-1 illustrates the program and map being executed in a browser with the PF key button texts showing the PF key names.

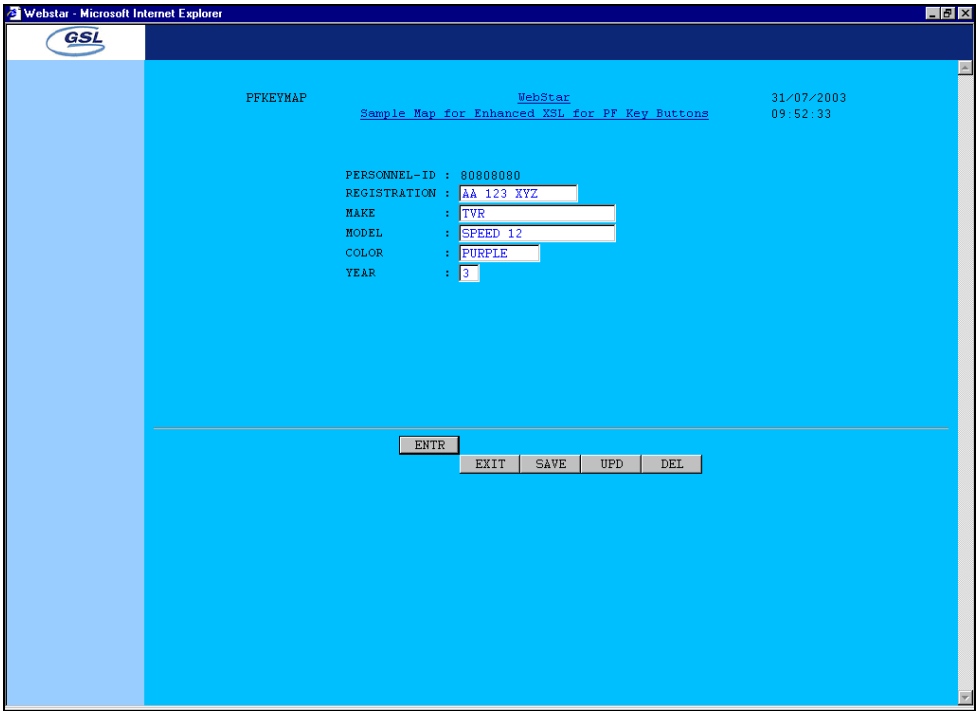


Figure 1-1 PF key button texts showing PF key names

# 1

## Natural Engineer WebStar Version 4.4.2 Release Notes

The following Figure 1-2 illustrates the PF key identity for PF key name 'EXIT'.

The screenshot displays a web application window titled "Webstar - Microsoft Internet Explorer". The main content area has a light blue background. At the top, there is a header bar with the "GSL" logo on the left and the text "WebStar" on the right. Below the header, the text "PFKEYMAP" is visible. The main content area contains a form with the following fields and values:

PERSONNEL-ID :	80808080
REGISTRATION :	AA 123 XYZ
MAKE :	TVR
MODEL :	SPEED 12
COLOR :	PURPLE
YEAR :	3

Below the form, there is a horizontal line. Underneath the line, there are four buttons: "ENTR", "PF3", "SAVE", "UPD", and "DEL". A mouse cursor is pointing at the "PF3" button.

Figure 1-2 PF key identity for PF key name 'EXIT'

The following Figure 1-3 illustrates the PF key identity for PF key name 'SAVE'.

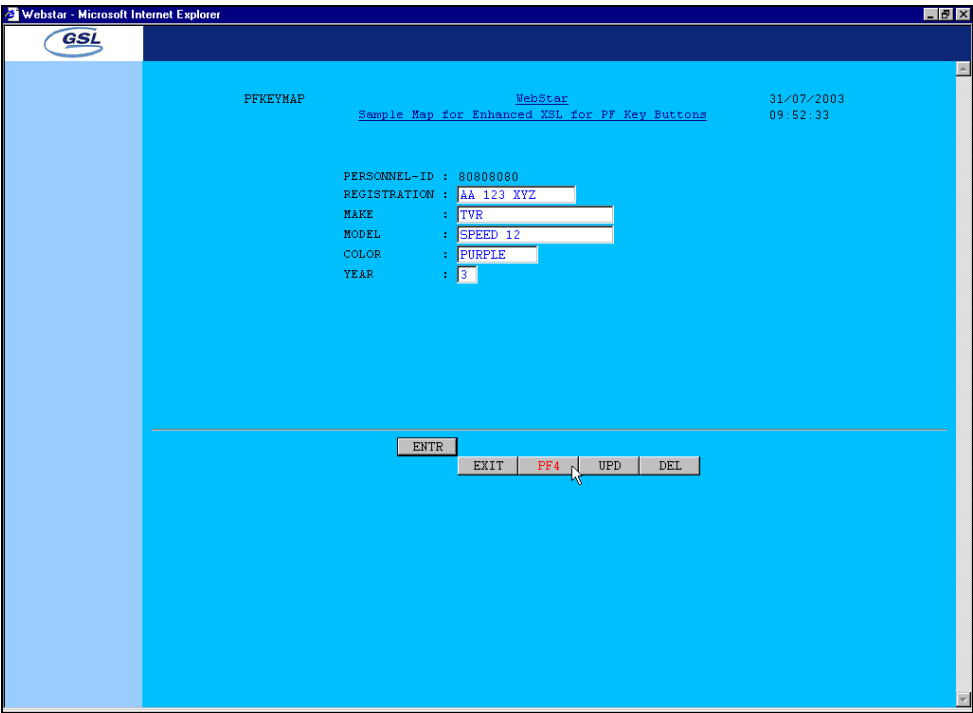


Figure 1-3 PF key identity for PF key name 'SAVE'

# 1

## Natural Engineer WebStar Version 4.4.2 Release Notes

The following Figure 1-4 illustrates the PF key identity for PF key name 'UPD'.

WebStar - Microsoft Internet Explorer

GSL

PFKEYMAP

WebStar

Sample Map for Enhanced XSL for PF Key Buttons

31/07/2003  
09:52:33

PERSONNEL-ID : 80808080

REGISTRATION : AA 123 XYZ

MAKE : TVR

MODEL : SPEED 12

COLOR : PURPLE

YEAR : 3

ENTR

EXIT SAVE PFS DEL

Figure 1-4 PF key identity for PF key name 'UPD'

The following Figure 1-5 illustrates the PF key identity for PF key name 'DEL'.

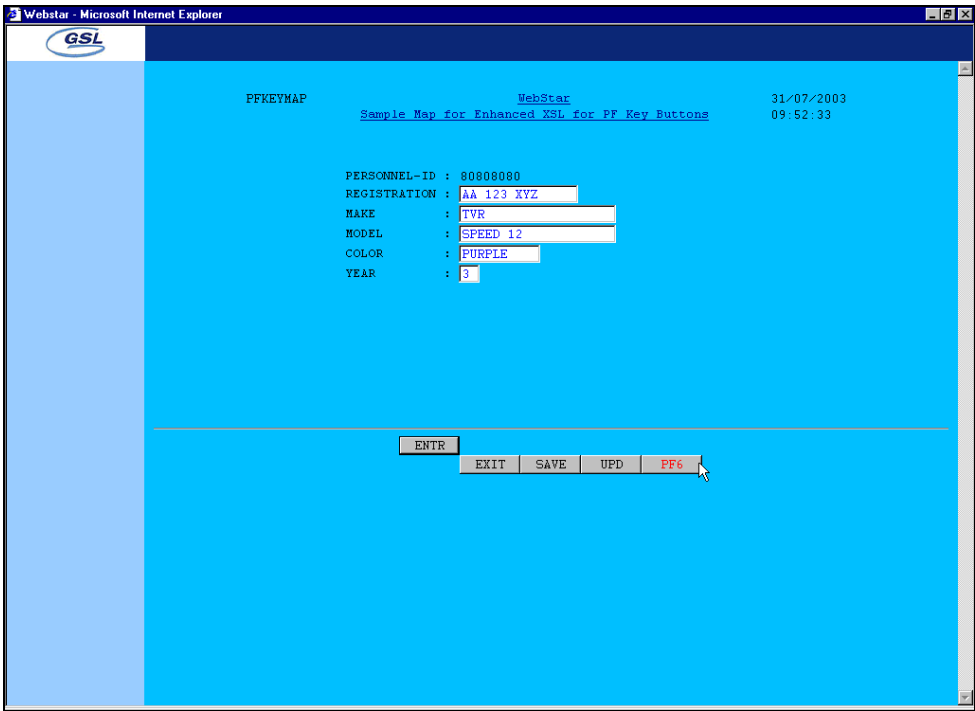


Figure 1-5 PF key identity for PF key name 'DEL'

## Changes & Enhancements

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### Removal of CLR Key Support

As there is no setting of the PF key to CLR, to simulate the pressing of the CLEAR key, this has been removed.

## OBSOLETE FUNCTIONALITY

### Chapter Overview

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This chapter covers all the functionality that has been removed from the Natural Engineer add-on component WebStar version 4.4.2 and is now obsolete.

### Obsolete Functionality

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There is no obsolete functionality with this patch release.





# DOCUMENTATION

## Chapter Overview

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This chapter covers the documentation changes made for Natural Engineer version 4.4.2.

### Documentation Updated

The documentation set for Natural Engineer has been updated to reflect the changes and additions provided with Natural Engineer version 4.4.2.

The following list provides a list of updated documentation and their respective order numbers:

Manual Title	Order number
Natural Engineer Concepts and Facilities	NEE442-006ALL
Natural Engineer Version 4.4.2 Release Notes	NEE442-008ALL
Natural Engineer WebStar Version 4.4.2 Release Notes	NWS442-008ALL
Natural Engineer Installation Guide	NEE442-010ALL
Natural Engineer Administration Guide	NEE442-040WIN NEE442-040MFR
Natural Engineer Application Management	NEE442-020WIN NEE442-020MFR
Natural Engineer Application Documentation	NEE442-022WIN NEE442-022MFR
Natural Engineer Application Analysis and Modification	NEE442-023WIN NEE442-023MFR
Natural Engineer Application Restructuring	NEE442-024WIN NEE442-024MFR

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#### Natural Engineer WebStar Version 4.4.2 Release Notes

Manual Title	Order number
Natural Engineer Utilities	NEE442-080WIN NEE442-080MFR
Natural Engineer Reporting	NEE442-025ALL
Natural Engineer Batch Processing [Mainframes]	NEE442-026MFR
Natural Engineer WebStar	NWS442-020ALL
Natural Engineer Messages and Codes	NEE442-060ALL

### New Compiled HTML Help

Natural Engineer now supplies online help for the PC in compiled HTML format. If you encounter an error message when invoking online help for the first time, you probably require an update to your Windows help system. Please check the following Microsoft web page for the appropriate update file:

**<http://msdn.microsoft.com/library/default.asp?url=/library/en-us/htmlhelp/html/hwMicrosoftHTMLHelpDownloads.asp>**

A version of the update files can also be found in the subdirectory 'Help' on the Natural Engineer product CD.

You can find further information about HTML help:

**<http://msdn.microsoft.com/library/default.asp?url=/library/en-us/htmlhelp/html/vsconHH1Start.asp?frame=true>**

*Note: In order to access HTML Help, the underlying components of Microsoft Internet Explorer 4.x (or later) must be installed.*

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